

- > ø 32 ... 320 mm
- > High performance adaptive cushioning system "ACS"
- > Low temperature version up to -40°C
- > High temperature version up to +150°C
- > 16 bar version available

- > Rail Cylinder
- Shock and vibration tested to EN 61373
- Category 1; Class A + B



Technical features

Medium:

Compressed air, filtered, lubricated or non-lubricated

Standard:

ISO 15552

Operation:

Double acting, adjustable cushioning

Operating pressure:

- ø 32 ... 125 mm (Profile barrel)
- 1 ... 12 bar (14 ... 174 psi)
- ø 32 ... 200 mm (Round barrel)
- 1 ... 16 bar (14 ... 232 psi)
- ø 250 & 320 mm (Round barrel)
- 1 ... 10 bar (14 ... 145 psi)

Ports:

G1/8 ... 1

Cylinder diameters:

32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 320 mm

Standard strokes:

25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500 mm

Non-standard strokes:

Available (5 ... 2800 mm)

Operating temperature:

- ø 32 ... 125 mm
 - "Standard version"
 - 20 ... +80°C max. (-4 ... +176°F)
 - ø 160 ... 320 mm
 - "Standard version"
 - 10 ... +80°C max. (+14 ... +176°F)
 - ø 32 ... 320 mm
 - "High temperature version" (T)
 - 0 ... +150°C max. (-17,7 ... +302°F)
 - ø 32 ... 200 mm
 - "Low temperature version" (L)
 - 40 max. ... +80°C max. (-40 ... +176°F)
- Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Standard Materials:

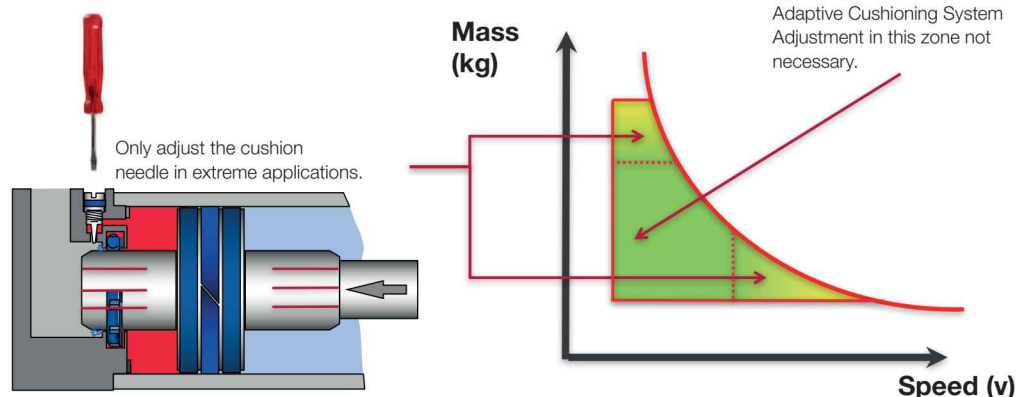
- Barrel: Anodised aluminium
- End covers: Pressure diecast aluminium (ø 200 ... 320 mm gravity cast aluminium)
- Piston rod: Stainless steel (martensitic)
- Piston rod seals: PUR (ø 160 ... 320 mm NBR)
- Piston seals: PUR (ø 160 ... 320 mm NBR)
- 'O'-rings: NBR

Technical data

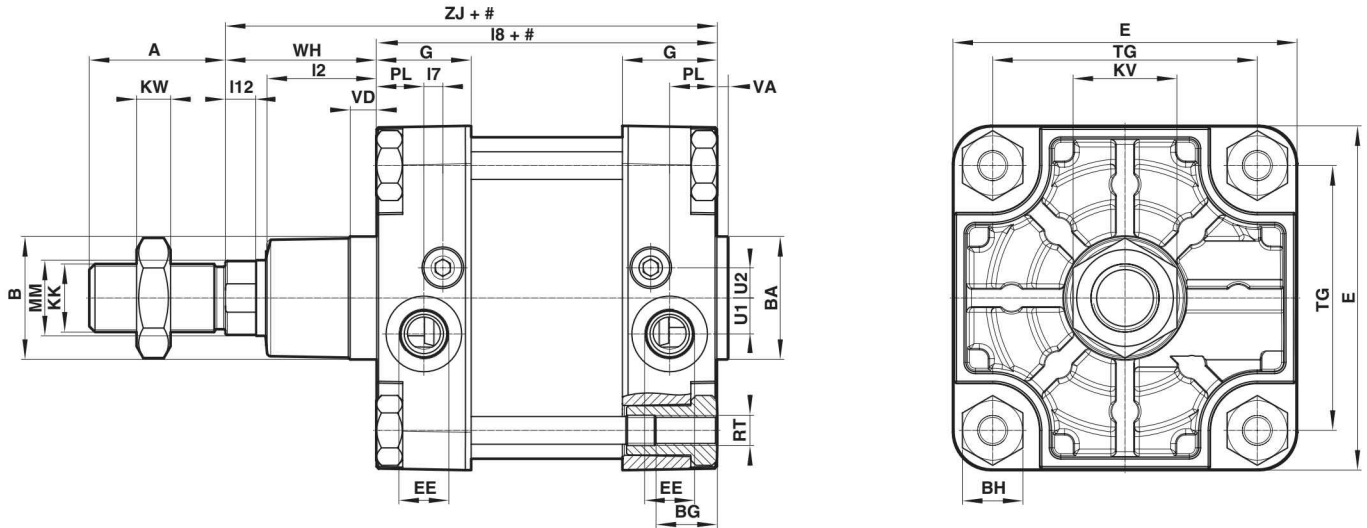
Cylinder ø (mm)	32	40	50	63	80	100	125	160	200	250	320
Profile barrel	•	•	•	•	•	•	•				
Round barrel	•	•	•	•	•	•	•	•	•	•	•
Port size	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2	G1/2	G3/4	G3/4	G1	G1
Piston rod ø (mm)	12	16	20	20	25	25	32	40	40	50	63
Piston rod thread	M10 x 1,25	M12 x 1,25	M16 x 1,5	M16 x 1,5	M20 x 1,5	M20 x 1,5	M27 x 2	M36 x 2	M36 x 2	M42 x 2	M48 x 2
Cushion length (mm)	20	22	24	24	26	33	39	43	43	55	60
Cushioning											
Adaptive cushioning systems "ACS"	•	•	•	•	•	•	•				
Cushioning (adjustable cushion)								•	•	•	•
Initial cushion volume (cm ³)	12,8	20,2	36	64	111	235	427	784	1273	2534	4559
Theoretical thrusts at 6 bar outstroke (N)	482	754	1178	1870	3016	4710	7363	12064	18840	29436	48228
Theoretical thrusts at 6 bar instroke (N)	414	633	990	1680	2722	4416	6882	11310	18090	28236	47292
Air consumption at 6 bar outstroke (l/cm)	0,056	0,088	0,137	0,218	0,35	0,55	0,86	1,41	2,2	3,44	5,63
Air consumption at 6 bar instroke (l/cm)	0,048	0,074	0,114	0,195	0,32	0,51	0,79	1,32	2,1	3,3	5,41

The function

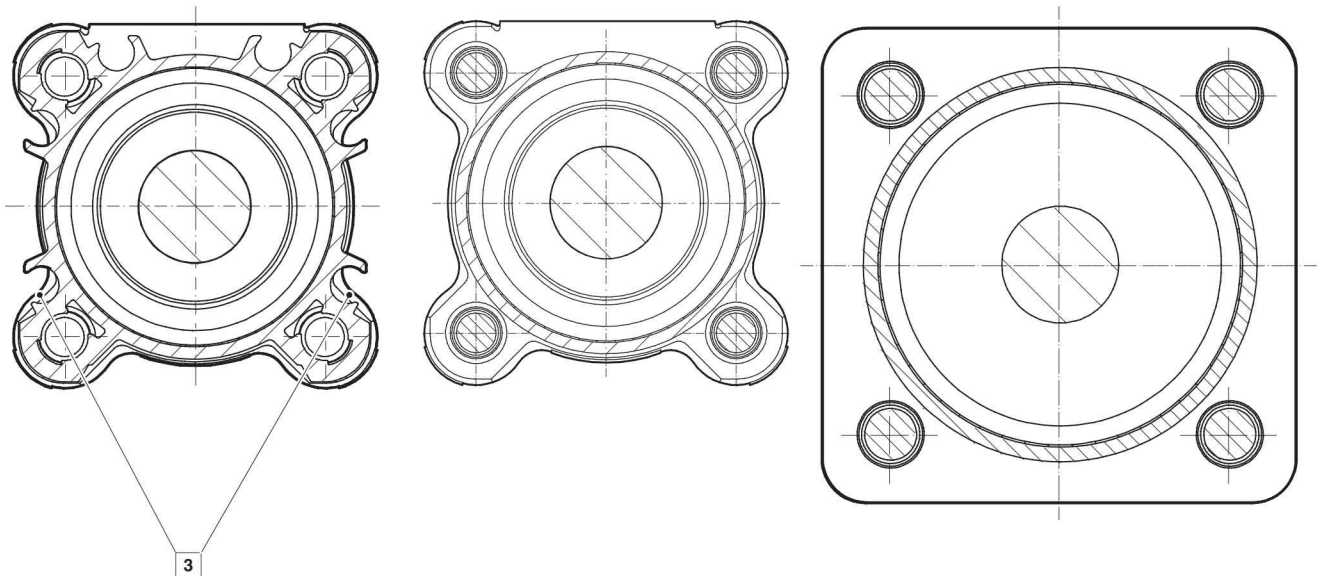
The new "ACS" Adaptive Cushioning System provides a high performance pneumatic damping function. The system will automatically cushion for a wide range of general applications as delivered. Manual adjustment is still possible for extreme applications.



Basic dimensions
PRA/802000/M, RA/802000/M, RA/8000, RA/8000/M
Standard Cylinder
ø 160 - 320 mm

 Dimensions in mm
 Projection/First angle

Model Profile barrel
 ø 32 ... 125 mm

Model Round barrel
 ø 32 ... 125 mm

Model Round barrel
 ø 160 ... 320 mm


Stroke



\$ Piston rod extension


1 Cushion screw

2 ø 80 ... 320 mm

3 M/50 switches can be mounted flush with the profile

 For additional information please contact the technical service or <http://www.imi-precision.com>

ø	A -0,5	ø B d11	ø BA d11	BG min	 BH	□ E	EE	G	KK	 KV	KW	L2	L3	L7	L8	L12	ø MM h9	PL	TG
32	22	30	30	16	6	47	G1/8	29	M10 x 1,25	17	5	19,5	4	6,6	94	5,5	12	15	32,5
40	24	35	35	16	6	53	G1/4	34,5	M12 x 1,25	19	6	22	4	5,6	105	6,5	16	21,5	38
50	32	40	40	16	8	65	G1/4	33	M16 x 1,5	24	8	25	5	1,6	106	8	20	22,7	46,5
63	32	45	45	16	8	75	G3/8	36,5	M16 x 1,5	24	8	25	5	3,6	121	8	20	24,2	56,5
80	40	45	45	17	19	95	G3/8	42	M20 x 1,5	30	10	33	-	1,8	128	10	25	29,7	72
100	40	55	55	17	19	113	G1/2	42	M20 x 1,5	30	10	35	-	3,8	138	10	25	27,7	89
125	54	60	60	20	24	140	G1/2	54	M27 x 2	41	13,5	44	-	1,8	160	13	32	39,7	110
160	72	65	65	28,5	32	183,5	G3/4	50	M36 x 2	55	18	58	-	10	180	16	40	25	140
200	72	75	75	28,5	32	224	G3/4	50	M36 x 2	55	18	67	-	10	180	16	40	26	175
250	84	90	90	35	36	280	G1	58	M42 x 2	65	21	80	-	4,5	200	20	50	28	220
320	96	110	110	30	46	350	G1	60	M48 x 2	75	24	90	-	4,5	220	24	63	31	270

ø	RT	 SW	U1	U2	VA	VD	WH	ZJ	Model Profile barrel	at 0 mm	per 25 mm	Model Round barrel	at 0 mm	per 25 mm
32	M 6	10	4,6	6,3	3,5	6	26	120	PRA/802032/M/*	0,49 (kg)	0,06 (kg)	RA/802032/M/*	0,46 (kg)	0,06 (kg)
40	M 6	13	5,8	9,2	3,5	6	30	135	PRA/802040/M/*	0,69 (kg)	0,08 (kg)	RA/802040/M/*	0,65 (kg)	0,08 (kg)
50	M 8	17	8,7	10,8	3,5	6	37	143	PRA/802050/M/*	1,09 (kg)	0,12 (kg)	RA/802050/M/*	1,02 (kg)	0,12 (kg)
63	M 8	17	10	12,8	3,5	6	37	158	PRA/802063/M/*	1,54 (kg)	0,13 (kg)	RA/802063/M/*	1,46 (kg)	0,14 (kg)
80	M 10	22	12	14,5	3,5	6	46	174	PRA/802080/M/*	2,64 (kg)	0,20 (kg)	RA/802080/M/*	2,54 (kg)	0,21 (kg)
100	M 10	22	9	14,5	3,5	6	51	189	PRA/802100/M/*	3,66 (kg)	0,23 (kg)	RA/802100/M/*	3,50 (kg)	0,23 (kg)
125	M 12	27	12	17	5,5	8	65	225	PRA/802125/M/*	6,16 (kg)	0,45 (kg)	RA/802125/M/*	5,92 (kg)	0,34 (kg)
160	M 16	36	19	16	4	15	80	260	-	-	-	RA/8160/M/*	14,9 (kg)	0,55 (kg)
200	M 16	36	19	16	5	15	95	275	-	-	-	RA/8200/M/*	21,7 (kg)	0,60 (kg)
250	M 20	41	22	30	7	13	105	305	-	-	-	RA/8250/M/*	32,6 (kg)	0,92 (kg)
320	M 24	55	22	30	7	13	120	340	-	-	-	RA/8320/M/*	59,8 (kg)	1,46 (kg)

* Please insert stroke length.

Basic Dimension are also for cylinder variants or for different piston rod material

LPRA/802000/M, LRA/802000/M, LRA/8000/M - Low Temperature Cylinder

TPRA/802000/M, TRA/802000/M, TRA/8000/M - High Temperature Cylinder

HPRA/802000/M, HRA/802000/M, - Hydraulic Cylinder

PRA/802000/W2, RA/802000/W2 - Cylinder with Special Wiper - Seal

PRA/802000/X2, RA/802000/X2, RA/8000/X2 - Low Friction Cylinder

PRA/802000/MU, RA/802000/MU, RA/8000/MU - Cylinder with Extended Piston Rod

PRA/802000/W6, RA/802000/W6 - Cylinder with Extended Piston Rod and Special Wiper - Seal

PRA/802000/MW, RA/802000/MW, RA/8000/MW - Cylinder without Cushioning

PRA/802000/X4, RA/802000/X4, RA/8000/X4 - Low Friction Cylinder without Cushioning

RA/8000/W1 - Cylinder with Special Wiper - Seal without Magnet

RA/8000/X1 - Low Friction Cylinder without Magnet

RA/8000/IU - Cylinder with Extended Piston Rod without Magnet

RA/8000/W5 - Cylinder with Extended Piston Rod and Special Wiper - Seal without Magnet

RA/8000/W - Cylinder without Cushioning without Magnet

RA/8000/X3 - Low Friction Cylinder without Cushioning without Magnet